

Lower Menominee River Area of Concern

Reaching our targets will lead us to our goal of delisting the AOC, which means the ecological benefits of the Lower Menominee River have been restored to an acceptable level. We will know we have achieved this when public uses are no longer impaired by legacy contamination and native plants and wildlife are sustainably protected. With toxic sediments removed and as habitat restoration continues, the river is becoming a more and more valuable resource for recreation and the local economy.



Reid Hammit

Restoration Sites in the Lower Menominee River Area of Concern



Lower Menominee River – part of the largest fresh surface water resource in the world – the Great Lakes ecosystem

For more details about AOC progress and projects, refer to the Area of Concern Remedial Action Plan Updates, available at <http://dnr.wi.gov/topic/greatlakes/aoc.html>



Regional Natural Resources Program



WISCONSIN DEPT. OF NATURAL RESOURCES



Great Lakes RESTORATION



Environmental Resources Center

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Lower Menominee River Area of Concern

BENEFICIAL USE IMPAIRMENT RESTORATION REPORT

Summer 2015

The Lower Menominee River

was designated an Area of Concern (AOC) in the 1980s because contaminated river sediment impaired public benefits such as fish consumption, healthy fisheries, shipping channels and wildlife habitat.



Eagle Creek Renewable Energy, Inc. Photo by Brian Halbrook – Bird's Eye Aviation



The Menominee River flowing into Lake Michigan.



Sailboats in Nestegg Marine.

Scott Pearson



Launch of USS Milwaukee at Marinette Marine.

The Wisconsin Department of Natural Resources (WDNR) and citizen groups identified six Beneficial Use Impairments (BUIs) to target here for improving the river.

See progress report inside ➡



Fishing in Menekaunee Harbor.

Cheryl Baugle, WDNR

Lower Menominee River AOC – Restoration Status Update

Summer 2015

Tackling AOC problems, known as Beneficial Use Impairments in the Area of Concern program, requires several steps. We must understand the causes and define the extent of the impairments through monitoring, assessment and data analysis. We then determine the necessary actions to address the problems, and implement them.

After decades of hard work, Menominee is on track to complete all of its necessary actions by 2016. Once complete, the focus will be on monitoring to verify that AOC goals are being met. It may take time for the natural system to recover following cleanup actions and habitat restoration.

This update shows the current status (Summer 2015) of the removal phases for six impairments of the Lower Menominee River – *complete, underway, or not started* – and the next steps. Dates in parentheses indicate the anticipated project completion.



Restoration work is enhancing nesting sites for birds such as these egrets.

BUI Removal Phases:

- MA MONITOR & ASSESS:** define the problem, gather data and review literature, consult with experts.
- DP DEVELOP AOC PROJECTS:** engage stakeholders to develop the set of projects that are necessary for reaching AOC goals.
- IP IMPLEMENT PROJECTS:** take action to improve conditions within the AOC if monitoring if monitoring data shows goals are not being met.
- VR VERIFY RESULTS:** after actions have been taken, monitor to determine if target has been met.
- RM FORMAL BUI REMOVAL:** targets have been met; BUI removal documentation is being prepared or reviewed, or has been submitted.

Status of Each Phase:

- not started
- underway
- complete

There are health concerns with eating fish & wildlife

NEXT STEPS:

- Evaluate results of fish tissue sampling to determine levels of mercury, polychlorinated biphenyls (PCBs) and other toxins (2015).
- Compare AOC fish results to Green Bay and Little Bay de Noc to assess if targets have been reached (2015).

- MA
- DP
- IP
- VR
- RM

Fish and wildlife populations are degraded

NEXT STEPS:

- Conduct additional fish surveys to evaluate population health of target species (2015).
- Assess survey results to determine if fish population targets have been met (2016).
- Continue to complete habitat restoration projects identified in the Fish and Wildlife management plan (through 2016).

- MA
- DP
- IP
- VR
- RM

Communities of sediment-dwelling organisms are degraded

NEXT STEPS:

- Complete follow-up actions to riverbed and harbor sediment cleanup to ensure these pollution concerns have been fully addressed (2015).

- MA
- DP
- IP
- VR
- RM

Dredging activities for commerce or navigation are restricted

NEXT STEPS:

- Complete Ansul/Tyco arsenic site cleanup project, including strategic sand placement (2015).
- Beneficially use clean dredged material for Menekaunee Harbor habitat restoration (2015).
- Monitor completed sites to ensure pollution cleanup methods were successful (2015).
- Develop an AOC dredge management plan to protect cleanup sites and ensure public safety (2016).

- MA
- DP
- IP
- VR
- RM

Water contact through beach use or other recreation is limited

BUI REMOVED

This Beneficial Use Impairment's removal phases are successfully completed and a formal BUI removal application has been accepted.

- MA
- DP
- IP
- VR
- RM

Loss of fish & wildlife habitat

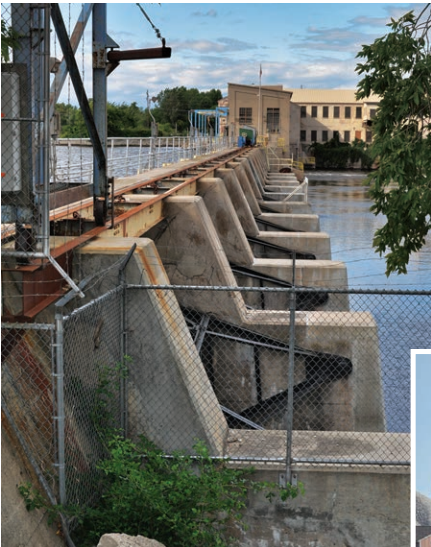
NEXT STEPS:

- Implement Menekaunee Harbor and South Channel habitat restorations (through 2016).
- Continue restoring native vegetation on Strawberry, Boom, Blueberry and Little Blueberry Islands to support nesting birds (through 2016).
- Complete fish passage around Menominee and Park Mill Dams including fish elevator for upstream passage of Sturgeon (through 2016).

- MA
- DP
- IP
- VR
- RM



Kingfisher and great blue heron illustrations by Cindie Brunner



Clockwise from above: a fish elevator is being constructed on the Menominee dam; spawning sturgeon; Menekaunee Harbor is dredged to remove polluted sediments.



Monitor and Assess (MA)

Develop AOC Projects (DP)

Implement Projects (IP)

Verify Results (VR)

Formal BUI Removal (RM)

← RETURN TO PROCESS STEPS IF TARGETS NOT REACHED



BUI REMOVED